

## EAST Search History

| Ref # | Hits   | Search Query  | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|--------|---|---|------------------|---------|------------------|
| L1    | 11861  | aom aod (acoust\$2 adj optic\$2 adj2 (modulator deflector))                             | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR               | ON      | 2006/07/29 08:02 |
| L2    | 385459 | (exit optic\$2) near2 fiber   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/07/29 07:55 |
| L3    | 9267   | 2 same groove   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR               | ON      | 2006/07/29 08:03 |
| L4    | 8      | 1 same 3  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR               | ON      | 2006/07/29 07:58 |
| L5    | 580    | 1 same 2  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR               | ON      | 2006/07/29 07:58 |
| L6    | 36     | 3 and 5   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR               | ON      | 2006/07/29 07:58 |
| L7    | 7      | ("4295145"   "4577926"   "4995693"   "5132834"   "5745153"   "5748222"   "5780806").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR               | ON      | 2006/07/29 08:00 |
| L8    | 0      | ("6822669").URPN.   | USPAT   | OR               | ON      | 2006/07/29 08:02 |
| L9    | 14168  | aom aod (acoust\$2 adj optic\$2 adj2 (modulator deflector))                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/07/29 08:02 |
| L10   | 19410  | 2 same groove   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/07/29 08:03 |
| L11   | 8      | 9 same 10   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/07/29 08:03 |

## EAST Search History

|     |     |               |   |    |    |                  |
|-----|-----|---------------|---|----|----|------------------|
| L12 | 697 | 9 same 2      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:04 |
| L13 | 37  | 10 and 12     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:04 |
| L14 | 1   | 13 not 6      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:04 |
| L15 | 660 | 12 not 13     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:05 |
| L16 | 55  | 15 and groove | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:06 |
| L17 | 605 | 15 not 16     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:39 |
| L18 | 114 | 9 near3 multi | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:23 |
| L19 | 8   | 17 and 18     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:08 |

## EAST Search History

|     |    |   |   |    |    |                  |
|-----|----|---|---|----|----|------------------|
| L20 | 24 | 2 and 18  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:08 |
| L21 | 21 | ("3931458"   "4729037"  <br>"5202893"   "5363233"   "5369661"<br>  "5373526"   "5654125"  <br>"5719009"   "5760880"   "5780200"<br>  "5798202"   "5829881"  <br>"5867305"   "5900109"   "5949466"<br>  "5953036"   "6106627"  <br>"6136375"   "6167075"   "6283022"<br>  "RE32139").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 08:18 |
| L22 | 0  | ("6888853").URPN.   | USPAT   | OR | ON | 2006/07/29 08:20 |
| L23 | 75 | ("3902048"   "3919527"  <br>"3947816"   "3978317"   "4006343"<br>  "4026630"   "4093865"  <br>"4097729"   "4113343"   "4333006"<br>  "4364627"   "4378142"  <br>"4415224"   "4416505"   "4428643"<br>  "4429946"   "4591242"  <br>"4610500"   "4639070"   "4647143"<br>  "4652732"   "4713532"  <br>"4748316"   "4753502"   "4758058"<br>  "4766298"   "4790612"  <br>"4794237"   "4795224"   "4800256"<br>  "4861973"   "4904034"  <br>"4957336"   "4960985"   "4973112"<br>  "5000529"   "5026975"  <br>"5039184"   "5073702"   "5124537"<br>  "5132524"   "5144118"  <br>"5153417"   "5162929"   "5170180"<br>  "5206491"   "5212370"  <br>"5216230"   "5229588"   "5286961"<br>  "5296689"   "5361158"  <br>"5459308"   "5475207"   "5484990"<br>  "5491328"   "5495097"  <br>"5504595"   "5510605"   "5515097"<br>  "5517359"   "5550655"  <br>"5555130"   "5557093"   "5684289"<br>  "5689102"   "5693930"  <br>"5705802"   "5723852"   "5801370"<br>  "5814803"   "5837988"  <br>"5869827"   "5886336"  <br>"5896162").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 08:20 |
| L24 | 3  | ("6466359").URPN.   | USPAT   | OR | ON | 2006/07/29 08:21 |

## EAST Search History

|     |     |   |   |    |    |                  |
|-----|-----|---|---|----|----|------------------|
| L25 | 422 | 17 and @ay<="2001"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:41 |
| L26 | 422 | 25 and 2 and 9  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 08:58 |
| L27 | 4   | ("4819018"   "4822151"  <br>"5550574"   "6151099").PN.  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 08:47 |
| L28 | 5   | ("4745487"   "4864326"  <br>"4897737"   "5978010"  <br>"6081316").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 08:47 |
| L29 | 3   | ("4819018"   "4822151"  <br>"5550574").PN.  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 08:50 |
| L30 | 6   | ("5978010").URPN.   | USPAT   | OR | ON | 2006/07/29 08:50 |
| L31 | 3   | ("6151099").URPN.   | USPAT   | OR | ON | 2006/07/29 08:51 |
| L32 | 3   | ("5086341"   "5771320"  <br>"5953143").PN.  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 08:52 |
| L33 | 2   | "5,351,330".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 10:07 |
| L34 | 12  | ("3826998"   "4146298"  <br>"4186995"   "4432601"   "4749250"<br>  "4840457"   "4842391"  <br>"5163114"   "5189716"   "5202558"<br>  "5208888"   "5351330").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 09:00 |
| L35 | 9   | ("5668899").URPN.   | USPAT   | OR | ON | 2006/07/29 09:00 |
| L36 | 16  | ("4232385"   "4342504"  <br>"4373782"   "4632513"   "4772085"<br>  "4798438"   "4834481"  <br>"4884095"   "4900118"   "4932747"<br>  "4933688"   "5113244"  <br>"5170451"   "5502783"   "5504609"<br>  "Re33296").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 09:02 |
| L37 | 13  | ("5666447").URPN.   | USPAT   | OR | ON | 2006/07/29 09:07 |

## EAST Search History

|     |    |   |                              |    |    |                  |
|-----|----|---|------------------------------|----|----|------------------|
| L38 | 13 | ("4201455"   "4244005"   "4506275"   "4516838"   "4520047"   "4520472"   "4540245"   "4617578"   "4634232"   "4667300"   "4743091"   "4810068"   "4960320").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/29 09:10 |
| L39 | 7  | ("1751584"   "3820123"   "3841733"   "3982253"   "4075662"   "4359267").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/29 09:15 |
| L40 | 7  | ("4506275").URPN.   | USPAT                        | OR | ON | 2006/07/29 09:15 |
| L41 | 17 | ("4201455").URPN.   | USPAT                        | OR | ON | 2006/07/29 09:16 |
| L42 | 8  | ("4502757"   "4617578"   "4688883"   "4758848"   "4762417"   "4777358"   "4799210"   "4844618").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/29 09:21 |
| L43 | 6  | ("4975717").URPN.   | USPAT                        | OR | ON | 2006/07/29 09:22 |
| L44 | 35 | ("3506779"   "3574657"   "3628953"   "3773404"   "4054094"   "4492970"   "4548893"   "4563056"   "4693958"   "4731317"   "4867545"   "4880299"   "4959664"   "4975717"   "5109460"   "5168288"   "5180652"   "5188032"   "5212048"   "5270368"   "5310869"   "5339737"   "5353705"   "5357617"   "5378580"   "5379698"   "5385092"   "5414561"   "5469787"   "5605097"   "5745153"   "5781224"   "5808657").PN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/29 09:25 |
| L45 | 0  | ("6989854").URPN.   | USPAT                        | OR | ON | 2006/07/29 09:27 |
| L46 | 2  | ("4513326"   "4547814").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/29 09:31 |
| L47 | 21 | ("4801950").URPN.   | USPAT                        | OR | ON | 2006/07/29 09:32 |
| L48 | 9  | ("4739416"   "4751522"   "4801950"   "4814886"   "4878063"   "5068904"   "5274394"   "5291248"   "5453777").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/29 09:33 |
| L49 | 5  | ("5942745").URPN.   | USPAT                        | OR | ON | 2006/07/29 09:34 |
| L50 | 4  | ("3787888"   "4093961"   "4283785"   "4470075").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/29 09:38 |
| L51 | 2  | ("3725574"   "3727062").PN.   | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/29 09:40 |
| L52 | 9  | ("4470075").URPN.   | USPAT                        | OR | ON | 2006/07/29 09:40 |

## EAST Search History

|     |    |   |   |    |    |                  |
|-----|----|---|---|----|----|------------------|
| L53 | 6  | ("5132834" "4995693" "4801950").pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 09:58 |
| L55 | 21 | ("3931458"   "4729037"  <br>"5202893"   "5363233"   "5369661"<br>  "5373526"   "5654125"  <br>"5719009"   "5760880"   "5780200"<br>  "5798202"   "5829881"  <br>"5867305"   "5900109"   "5949466"<br>  "5953036"   "6106627"  <br>"6136375"   "6167075"   "6283022"<br>  "RE32139").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 10:03 |
| L56 | 0  | ("6888853").URPN.   | USPAT   | OR | ON | 2006/07/29 10:06 |
| L57 | 0  | "wo 0013039"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 10:07 |
| L58 | 0  | "wo 13039"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 10:07 |
| L59 | 0  | "wo 00/13039"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 10:07 |
| L60 | 10 | ("6466359" "6011250" "5309178"<br>"6888853" "6595697").pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 10:09 |
| L61 | 3  | 60 and 9  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 10:11 |

## EAST Search History

|     |    |   |   |    |    |                  |
|-----|----|---|---|----|----|------------------|
| L62 | 8  | 60 and (fiber 9)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 10:11 |
| S92 | 10 | ("6466359" "6011250" "5309178"<br>"6888853" "6595697").pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 10:09 |
| S93 | 75 | ("3902048"   "3919527"  <br>"3947816"   "3978317"   "4006343"<br>  "4026630"   "4093865"  <br>"4097729"   "4113343"   "4333006"<br>  "4364627"   "4378142"  <br>"4415224"   "4416505"   "4428643"<br>  "4429946"   "4591242"  <br>"4610500"   "4639070"   "4647143"<br>  "4652732"   "4713532"  <br>"4748316"   "4753502"   "4758058"<br>  "4766298"   "4790612"  <br>"4794237"   "4795224"   "4800256"<br>  "4861973"   "4904034"  <br>"4957336"   "4960985"   "4973112"<br>  "5000529"   "5026975"  <br>"5039184"   "5073702"   "5124537"<br>  "5132524"   "5144118"  <br>"5153417"   "5162929"   "5170180"<br>  "5206491"   "5212370"  <br>"5216230"   "5229588"   "5286961"<br>  "5296689"   "5361158"  <br>"5459308"   "5475207"   "5484990"<br>  "5491328"   "5495097"  <br>"5504595"   "5510605"   "5515097"<br>  "5517359"   "5550655"  <br>"5555130"   "5557093"   "5684289"<br>  "5689102"   "5693930"  <br>"5705802"   "5723852"   "5801370"<br>  "5814803"   "5837988"  <br>"5869827"   "5886336"  <br>"5896162").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/28 17:41 |
| S94 | 3  | ("6466359").URPN.   | USPAT   | OR | ON | 2006/07/28 17:42 |

## EAST Search History

|          |        |  |   |    |    |                  |
|----------|--------|--|---|----|----|------------------|
| S95      | 24     | ("3805275"   "4581617"  <br>"4761659"   "4796265"   "4802179"<br>  "4811348"   "4879459"  <br>"4942584"   "4949345"   "5006704"<br>  "5021647"   "5166510"  <br>"5225850"   "5270736"   "5282217"<br>  "5305337"   "5369272"  <br>"5369630"   "5377213"   "5473153"<br>  "5600126"   "5659414"  <br>"5844707"   "5892219").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/28 17:42 |
| S96      | 37     | ("4581617").URPN.  | USPAT   | OR | ON | 2006/07/28 17:44 |
| S97      | 2      | ("6011250").URPN.  | USPAT   | OR | ON | 2006/07/28 17:44 |
| S98      | 13     | ("4201455"   "4244005"  <br>"4506275"   "4516838"   "4520047"<br>  "4520472"   "4540245"  <br>"4617578"   "4634232"   "4667300"<br>  "4743091"   "4810068"  <br>"4960320").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/28 17:48 |
| S99      | 187014 | (exit optic\$2) near2 fiber  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/28 17:58 |
| S10<br>0 | 9267   | S99 same groove  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 07:55 |
| S10<br>1 | 23780  | S99 same align\$4  | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/28 17:58 |
| S10<br>2 | 11861  | aom aod (acoust\$2 adj optic\$2 adj2<br>(modulator deflector))   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/29 07:55 |
| S10<br>3 | 40     | S100 and S101 and S102   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/28 17:49 |
| S10<br>4 | 2      | "5132834".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/28 17:57 |
| S10<br>5 | 385459 | (exit optic\$2) near2 fiber  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/29 07:55 |



## EAST Search History

|          |       |   |   |    |    |                  |
|----------|-------|---|---|----|----|------------------|
| S10<br>6 | 19410 | S105 same groove  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/28 18:04 |
| S10<br>7 | 34338 | S105 same align\$4  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/28 17:58 |
| S10<br>8 | 14168 | aom aod (acoust\$2 adj optic\$2 adj2<br>(modulator deflector))                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/28 17:59 |
| S10<br>9 | 40    | S106 and S107 and S108  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/28 17:59 |
| S11<br>0 | 7     | ("4295145"   "4577926"  <br>"4995693"   "5132834"   "5745153"<br>  "5748222"   "5780806").PN. | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/28 17:59 |
| S11<br>1 | 5     | ("4995693").URPN.   | USPAT   | OR | ON | 2006/07/28 18:01 |
| S11<br>2 | 2     | ("4530573"   "4693548").PN.   | US-PGPUB;<br>USPAT;<br>USOCR                                      | OR | ON | 2006/07/28 18:01 |
| S11<br>3 | 10    | ("4577926").URPN.   | USPAT   | OR | ON | 2006/07/28 18:02 |
| S11<br>4 | 10    | ("4577926").URPN.   | USPAT   | OR | ON | 2006/07/28 18:03 |
| S11<br>5 | 697   | S105 same S108  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/28 18:06 |
| S11<br>6 | 488   | S115 and @ay<="2001"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/28 18:06 |

## EAST Search History

|          |    |                             |                              |    |    |                  |
|----------|----|-----------------------------|------------------------------|----|----|------------------|
| S11<br>7 | 2  | ("4513326"   "4547814").PN. | US-PGPUB;<br>USPAT;<br>USOCR | OR | ON | 2006/07/28 18:28 |
| S11<br>8 | 16 | ("4547814").URPN.           | USPAT                        | OR | ON | 2006/07/28 18:29 |
| S11<br>9 | 21 | ("4801950").URPN.           | USPAT                        | OR | ON | 2006/07/28 18:29 |
| S12<br>0 | 21 | ("4801950").URPN.           | USPAT                        | OR | ON | 2006/07/28 18:32 |